

RECEIVED

Page 1 of 7

JUL 16 2002

1645

TECH CENTER 1600/2900

PCT09

RAW SEQUENCE LISTING

DATE: 07/18/2001

PATENT APPLICATION: US/09/000,004A

TIME: 12:01:49

Input Set : A:\600-314SeqLst.txt

Output Set: N:\CRF3\07182001\I000004A.raw

#15

CD

7/20/02

ENTERED

3 <110> APPLICANT: Tsilibary, Photini-Effie
4 Charonis, Aristidis S.
5 Setty, Suman
6 Mauer, Michael
8 <120> TITLE OF INVENTION: ANALYSIS OF ALPHA INTEGRINS FOR THE DIAGNOSIS OF DIABETIC
NEPHROPATHY
10 <130> FILE REFERENCE: 600.314USWO
12 <140> CURRENT APPLICATION NUMBER: US 09/000,004A
C--> 13 <141> CURRENT FILING DATE: 2001-06-19
15 <150> PRIOR APPLICATION NUMBER: US 60/001,387
16 <151> PRIOR FILING DATE: 1995-07-21
18 <150> PRIOR APPLICATION NUMBER: US 60/001,861
19 <151> PRIOR FILING DATE: 1995-08-03
21 <150> PRIOR APPLICATION NUMBER: US 60/016,700
22 <151> PRIOR FILING DATE: 1996-05-02
24 <150> PRIOR APPLICATION NUMBER: PCT/US96/12067
25 <151> PRIOR FILING DATE: 1996-07-19
27 <160> NUMBER OF SEQ ID NOS: 16
29 <170> SOFTWARE: PatentIn version 3.1
31 <210> SEQ ID NO: 1
32 <211> LENGTH: 3989
33 <212> TYPE: DNA
34 <213> ORGANISM: Rattus
36 <220> FEATURE:
37 <221> NAME/KEY: CDS
38 <222> LOCATION: (420)..(3959)
39 <223> OTHER INFORMATION:
42 <400> SEQUENCE: 1
43 agtatggaga gaaggtcggt taaaaaggca gatgtccctt taaggtttgc tttgctgctg 60
45 cccgtggact ttagcctaaa caggggtccc cgaagttggc tttatttgtc catgtctcgg 120
47 acacagcctg ggtagctgcc agtgagattt cagggacgga gcgcgcaaag gggggggaaa 180
49 tgtggcaatc catctgggat gtgagacgcg tggagagggc ttagcagcat ttgaccaaaa 240
51 cacaggaaat cactcctcca cagctcctgg gcgcagcagc ggctggggcc actgccggac 300
53 accctcggag accacacgag tgacccagag cgcaagtcgc cagcgtcccg gttctgcctg 360
55 ttcttgccag ctcttgccca cgaaccggca cgtagctggt tccagcagcc gctccagca 419
57 atg gtc ccc agg cgt cct gcc agc cta gag gtc act gta gcc tgc ata 467
58 Met Val Pro Arg Arg Pro Ala Ser Leu Glu Val Thr Val Ala Cys Ile
59 1 5 10 15
61 tgg ctt ctc acg gtc atc cta ggc ttc tgc gtc tcc ttc aat gtt gat 515
62 Trp Leu Leu Thr Val Ile Leu Gly Phe Cys Val Ser Phe Asn Val Asp
63 20 25 30
65 gtg aaa aac tca atg agt ttc agt ggc cca gta gag gac atg ttt gga 563
66 Val Lys Asn Ser Met Ser Phe Ser Gly Pro Val Glu Asp Met Phe Gly
67 35 40 45
69 tac act gtt caa caa tat gaa aac gaa gaa ggc aaa tgg gtt ctt att 611
70 Tyr Thr Val Gln Gln Tyr Glu Asn Glu Glu Gly Lys Trp Val Leu Ile
71 50 55 60
73 ggt tct cct tta gtt ggc caa ccc aaa gca aga act gga gat gtc tat 659

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/000,004A

DATE: 07/18/2001

TIME: 12:01:49

Input Set : A:\600-314SeqLst.txt

Output Set: N:\CRF3\07182001\I000004A.raw

```

74 Gly Ser Pro Leu Val Gly Gln Pro Lys Ala Arg Thr Gly Asp Val Tyr
75 65 70 75 80
77 aag tgt ccg gtt ggg aga gag aga gca atg cct tgc gtg aag ttg gac 707
78 Lys Cys Pro Val Gly Arg Glu Arg Ala Met Pro Cys Val Lys Leu Asp
79 85 90 95
81 ttg cca gtt aac aca tcg atc ccc aat gtc aca gaa ata aag gaa aac 755
82 Leu Pro Val Asn Thr Ser Ile Pro Asn Val Thr Glu Ile Lys Glu Asn
83 100 105 110
85 atg aca ttt gga tca act tta gtc acc aac ccg aat gga gga ttt ctg 803
86 Met Thr Phe Gly Ser Thr Leu Val Thr Asn Pro Asn Gly Gly Phe Leu
87 115 120 125
89 gca tgt ggg ccc ttg tat gcc tat aga tgt gga cat ttg cat tat aca 851
90 Ala Cys Gly Pro Leu Tyr Ala Tyr Arg Cys Gly His Leu His Tyr Thr
91 130 135 140
93 act gga ata tgt tct gat gtc agt cct aca ttt caa gtt gtg aac tcc 899
94 Thr Gly Ile Cys Ser Asp Val Ser Pro Thr Phe Gln Val Val Asn Ser
95 145 150 155 160
97 ttt gcc cct gta caa gaa tgc agc acc cag ctg gac ata gtc atc gtc 947
98 Phe Ala Pro Val Gln Glu Cys Ser Thr Gln Leu Asp Ile Val Ile Val
99 165 170 175
101 ctg gat ggc tcc aac agc atc tac ccc tgg gaa agt gtc atc gcc ttt 995
102 Leu Asp Gly Ser Asn Ser Ile Tyr Pro Trp Glu Ser Val Ile Ala Phe
103 180 185 190
105 tta aac gac ctt ctt aag agg atg gat att ggc cct aag cag aca cag 1043
106 Leu Asn Asp Leu Leu Lys Arg Met Asp Ile Gly Pro Lys Gln Thr Gln
107 195 200 205
109 gtc ggg att gta cag tat gga gag aat gta acc cat gag ttc aac ctc 1091
110 Val Gly Ile Val Gln Tyr Gly Glu Asn Val Thr His Glu Phe Asn Leu
111 210 215 220
113 aat aag tat tca tcc aca gaa gag gtc ctt gtc gca aac aaa ata 1139
114 Asn Lys Tyr Ser Ser Thr Glu Glu Val Leu Val Ala Ala Asn Lys Ile
115 225 230 235 240
117 ggc cga cag gga ggc ctc caa acg atg aca gcc ctt gga ata gac aca 1187
118 Gly Arg Gln Gly Gly Leu Gln Thr Met Thr Ala Leu Gly Ile Asp Thr
119 245 250 255
121 gcc agg aaa gag gca ttc act gaa gct cgg ggt gcc agg agg gga gtt 1235
122 Ala Arg Lys Glu Ala Phe Thr Glu Ala Arg Gly Ala Arg Arg Gly Val
123 260 265 270
125 aaa aaa gtc atg gtt att gtg acc gac gga gaa tcg cat gac aac tat 1283
126 Lys Lys Val Met Val Ile Val Thr Asp Gly Glu Ser His Asp Asn Tyr
127 275 280 285
129 cgc ctg aaa cag gtc atc caa gac tgc gag gac gaa aac att cag cga 1331
130 Arg Leu Lys Gln Val Ile Gln Asp Cys Glu Asp Glu Asn Ile Gln Arg
131 290 295 300
133 ttt tcc ata gct atc ctt ggc cac tat aac agg ggg aac tta agc act 1379
134 Phe Ser Ile Ala Ile Leu Gly His Tyr Asn Arg Gly Asn Leu Ser Thr
135 305 310 315 320
137 gaa aaa ttt gtg gag gaa ata aaa tcg atc gca agc gag ccc acg gaa 1427
138 Glu Lys Phe Val Glu Glu Ile Lys Ser Ile Ala Ser Glu Pro Thr Glu

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/000,004A

DATE: 07/18/2001

TIME: 12:01:49

Input Set : A:\600-314SeqLst.txt

Output Set: N:\CRF3\07182001\I000004A.raw

139		325		330		335	
141	aag cac ttc ttc aat gtc tgc gat gag ttg gcc ctg gtc act att gtt						1475
142	Lys His Phe Phe Asn Val Ser Asp Glu Leu Ala Leu Val Thr Ile Val						
143		340		345		350	
145	aaa gct ctg gga gaa agg ata ttc gct ttg gaa gcg aca gct gac cag						1523
146	Lys Ala Leu Gly Glu Arg Ile Phe Ala Leu Glu Ala Thr Ala Asp Gln						
147		355		360		365	
149	tca gca gct tca ttt gag atg gaa atg tct cag act ggc ttc agt gct						1571
150	Ser Ala Ala Ser Phe Glu Met Glu Met Ser Gln Thr Gly Phe Ser Ala						
151		370		375		380	
153	cac tac tcc cag gac tgg gtc atg ctt gga gcg gtg gga gcc tat gac						1619
154	His Tyr Ser Gln Asp Trp Val Met Leu Gly Ala Val Gly Ala Tyr Asp						
155	385		390		395	400	
157	tgg aac gga act gtg gtc atg cag aag gct aac cag atg gtc atc cct						1667
158	Trp Asn Gly Thr Val Val Met Gln Lys Ala Asn Gln Met Val Ile Pro						
159		405		410		415	
161	cat aac acc acc ttt caa act gag ccc gcc aag atg aac gag cct ctg						1715
162	His Asn Thr Thr Phe Gln Thr Glu Pro Ala Lys Met Asn Glu Pro Leu						
163		420		425		430	
165	gct tct tat tta ggt tac aca gtg aac tgc gcc acc atc cct gga gat						1763
166	Ala Ser Tyr Leu Gly Tyr Thr Val Asn Ser Ala Thr Ile Pro Gly Asp						
167		435		440		445	
169	gtg ctc tac atc gct ggg cag cct cgg tac aat cat acg ggc cag gtc						1811
170	Val Leu Tyr Ile Ala Gly Gln Pro Arg Tyr Asn His Thr Gly Gln Val						
171		450		455		460	
173	gtc atc tac aag atg gag gat ggg aac atc aac att ctg cag aca ctc						1859
174	Val Ile Tyr Lys Met Glu Asp Gly Asn Ile Asn Ile Leu Gln Thr Leu						
175	465		470		475	480	
177	ggc gga gag cag att ggt tcc tac ttt ggt agt gtc tta aca aca att						1907
178	Gly Gly Glu Gln Ile Gly Ser Tyr Phe Gly Ser Val Leu Thr Thr Ile						
179		485		490		495	
181	gac atc gac aaa gat tct tat act gat ctg ctt ctc gtc ggg gcc ccc						1955
182	Asp Ile Asp Lys Asp Ser Tyr Thr Asp Leu Leu Leu Val Gly Ala Pro						
183		500		505		510	
185	atg tac atg ggg aca gag aaa gag gaa cag ggc aag gtg tac gtg tac						2003
186	Met Tyr Met Gly Thr Glu Lys Glu Glu Gln Gly Lys Val Tyr Val Tyr						
187		515		520		525	
189	gct gtg aat cag aca agg ttt gaa tat caa atg agc ctg gaa cca att						2051
190	Ala Val Asn Gln Thr Arg Phe Glu Tyr Gln Met Ser Leu Glu Pro Ile						
191		530		535		540	
193	agg cag acc tgc tgc tca tcc ctg aag gat aat tca tgc acg aaa gaa						2099
194	Arg Gln Thr Cys Cys Ser Ser Leu Lys Asp Asn Ser Cys Thr Lys Glu						
195	545		550		555	560	
197	aac aag aat gag ccc tgc ggg gcc cgc ttc gga aca gca att gct gct						2147
198	Asn Lys Asn Glu Pro Cys Gly Ala Arg Phe Gly Thr Ala Ile Ala Ala						
199		565		570		575	
201	gta aaa gac ctc aac gtg gat gga ttt aat gac gtc gtg att gga gct						2195
202	Val Lys Asp Leu Asn Val Asp Gly Phe Asn Asp Val Val Ile Gly Ala						
203		580		585		590	

RAW SEQUENCE LISTING

DATE: 07/18/2001

PATENT APPLICATION: US/09/000,004A

TIME: 12:01:49

Input Set : A:\600-314SeqLst.txt

Output Set: N:\CRF3\07182001\I000004A.raw

205	ccg	ctg	gaa	gat	gac	cac	gca	gga	gct	gtg	tac	att	tat	cat	ggc	agt	2243
206	Pro	Leu	Glu	Asp	Asp	His	Ala	Gly	Ala	Val	Tyr	Ile	Tyr	His	Gly	Ser	
207			595					600					605				
209	ggc	aag	acc	ata	agg	gag	gcg	tat	gca	caa	cgc	att	cca	tca	ggt	ggg	2291
210	Gly	Lys	Thr	Ile	Arg	Glu	Ala	Tyr	Ala	Gln	Arg	Ile	Pro	Ser	Gly	Gly	
211		610					615					620					
213	gat	ggc	aag	acc	ctg	aaa	ttt	ttc	ggc	cag	tct	atc	cac	gga	gag	atg	2339
214	Asp	Gly	Lys	Thr	Leu	Lys	Phe	Phe	Gly	Gln	Ser	Ile	His	Gly	Glu	Met	
215	625					630				635					640		
217	gat	tta	aat	ggt	gac	ggt	ctg	act	gac	gtg	acc	att	gga	ggc	ctt	ggt	2387
218	Asp	Leu	Asn	Gly	Asp	Gly	Leu	Thr	Asp	Val	Thr	Ile	Gly	Gly	Leu	Gly	
219				645						650					655		
221	gga	gca	gcc	ctc	ttc	tgg	gcc	aga	gat	gtg	gct	gta	gtt	aaa	gtg	acc	2435
222	Gly	Ala	Ala	Leu	Phe	Trp	Ala	Arg	Asp	Val	Ala	Val	Val	Lys	Val	Thr	
223			660					665					670				
225	atg	aat	ttt	gaa	ccc	aat	aaa	gtg	aat	att	caa	aag	aaa	aac	tgc	cgt	2483
226	Met	Asn	Phe	Glu	Pro	Asn	Lys	Val	Asn	Ile	Gln	Lys	Lys	Asn	Cys	Arg	
227		675					680					685					
229	gtg	gag	ggc	aaa	gaa	aca	gtg	tgc	ata	aat	gct	aca	atg	tgt	ttt	cat	2531
230	Val	Glu	Gly	Lys	Glu	Thr	Val	Cys	Ile	Asn	Ala	Thr	Met	Cys	Phe	His	
231		690					695				700						
233	gtg	aaa	tta	aag	tct	aaa	gag	gac	tca	att	tac	gag	gct	gat	ctg	cag	2579
234	Val	Lys	Leu	Lys	Ser	Lys	Glu	Asp	Ser	Ile	Tyr	Glu	Ala	Asp	Leu	Gln	
235	705					710					715				720		
237	tac	cgt	gtc	acc	ctt	gat	tca	ctg	agg	cag	ata	tca	cgg	agc	ttt	ttt	2627
238	Tyr	Arg	Val	Thr	Leu	Asp	Ser	Leu	Arg	Gln	Ile	Ser	Arg	Ser	Phe	Phe	
239				725						730					735		
241	tct	gga	act	cag	gaa	agg	aag	att	caa	aga	aat	atc	acc	gtt	cga	gaa	2675
242	Ser	Gly	Thr	Gln	Glu	Arg	Lys	Ile	Gln	Arg	Asn	Ile	Thr	Val	Arg	Glu	
243			740							745				750			
245	tca	gaa	tgc	atc	agg	cac	tcc	ttc	tac	atg	ttg	gac	aaa	cat	gac	ttt	2723
246	Ser	Glu	Cys	Ile	Arg	His	Ser	Phe	Tyr	Met	Leu	Asp	Lys	His	Asp	Phe	
247		755					760					765					
249	cag	gac	tct	gtg	aga	gtg	act	ctg	gat	ttt	aat	ctc	act	gat	cca	gaa	2771
250	Gln	Asp	Ser	Val	Arg	Val	Thr	Leu	Asp	Phe	Asn	Leu	Thr	Asp	Pro	Glu	
251		770					775					780					
253	aat	ggt	cct	gta	ctt	gat	gac	gct	ctg	cca	aac	tca	gtc	cac	gaa	cac	2819
254	Asn	Gly	Pro	Val	Leu	Asp	Asp	Ala	Leu	Pro	Asn	Ser	Val	His	Glu	His	
255	785					790					795				800		
257	att	ccc	ttt	gcc	aaa	gac	tgt	gga	aac	aag	gaa	aga	tgc	att	tca	gac	2867
258	Ile	Pro	Phe	Ala	Lys	Asp	Cys	Gly	Asn	Lys	Glu	Arg	Cys	Ile	Ser	Asp	
259			805							810					815		
261	ctc	act	ctg	aat	gtg	tcc	acc	aca	gaa	aag	agc	ctg	ctg	atc	gtc	aag	2915
262	Leu	Thr	Leu	Asn	Val	Ser	Thr	Thr	Glu	Lys	Ser	Leu	Leu	Ile	Val	Lys	
263			820							825					830		
265	tcc	cag	cat	gac	aag	ttc	aac	gtt	agc	ctc	acc	gtc	aaa	aac	aaa	gga	2963
266	Ser	Gln	His	Asp	Lys	Phe	Asn	Val	Ser	Leu	Thr	Val	Lys	Asn	Lys	Gly	
267		835						840					845				
269	gac	agt	gcg	tac	aac	acc	agg	aca	gtg	gtg	cag	cat	tca	cca	aat	ctg	3011

RAW SEQUENCE LISTING

DATE: 07/18/2001

PATENT APPLICATION: US/09/000,004A

TIME: 12:01:49

Input Set : A:\600-314SeqLst.txt

Output Set: N:\CRF3\07182001\I000004A.raw

270	Asp	Ser	Ala	Tyr	Asn	Thr	Arg	Thr	Val	Val	Gln	His	Ser	Pro	Asn	Leu	
271		850					855				860						
273	att	ttt	tcg	gga	att	gag	gag	atc	caa	aaa	gat	agc	tgt	gaa	tct	aat	3059
274	Ile	Phe	Ser	Gly	Ile	Glu	Glu	Ile	Gln	Lys	Asp	Ser	Cys	Glu	Ser	Asn	
275	865					870					875					880	
277	caa	aat	atc	act	tgc	aga	gtt	gga	tat	cct	ttc	cta	aga	gca	gga	gaa	3107
278	Gln	Asn	Ile	Thr	Cys	Arg	Val	Gly	Tyr	Pro	Phe	Leu	Arg	Ala	Gly	Glu	
279					885					890						895	
281	acg	gtt	acc	ttc	aaa	ata	ata	ttc	cag	ttt	aac	aca	tcc	cat	ctc	tcg	3155
282	Thr	Val	Thr	Phe	Lys	Ile	Ile	Phe	Gln	Phe	Asn	Thr	Ser	His	Leu	Ser	
283				900					905					910			
285	gaa	aat	gca	atc	att	cac	tta	agt	gca	aca	agt	gac	agt	gag	gag	ccc	3203
286	Glu	Asn	Ala	Ile	Ile	His	Leu	Ser	Ala	Thr	Ser	Asp	Ser	Glu	Glu	Pro	
287			915				920					925					
289	ctg	gaa	tct	ctt	aat	gat	aat	gaa	gta	aat	att	tcc	atc	cca	gta	aaa	3251
290	Leu	Glu	Ser	Leu	Asn	Asp	Asn	Glu	Val	Asn	Ile	Ser	Ile	Pro	Val	Lys	
291		930					935					940					
293	tat	gaa	gtt	gga	ctg	cag	ttt	tac	agt	tct	gcg	agt	gaa	cat	cac	att	3299
294	Tyr	Glu	Val	Gly	Leu	Gln	Phe	Tyr	Ser	Ser	Ala	Ser	Glu	His	His	Ile	
295	945					950					955					960	
297	tca	gtc	gct	gcc	aat	gag	acg	atc	cct	gag	ttt	att	aac	tcc	act	gag	3347
298	Ser	Val	Ala	Ala	Asn	Glu	Thr	Ile	Pro	Glu	Phe	Ile	Asn	Ser	Thr	Glu	
299					965				970					975			
301	gac	att	ggg	aat	gaa	att	aat	gtc	ttc	tat	acg	att	aga	aag	agg	ggg	3395
302	Asp	Ile	Gly	Asn	Glu	Ile	Asn	Val	Phe	Tyr	Thr	Ile	Arg	Lys	Arg	Gly	
303				980					985					990			
305	cat	ttc	cca	atg	cca	gaa	ctt	cag	ctg	tca	att	tca	ttc	ccc	aat	ttg	3443
306	His	Phe	Pro	Met	Pro	Glu	Leu	Gln	Leu	Ser	Ile	Ser	Phe	Pro	Asn	Leu	
307			995				1000					1005					
309	acg	gca	gat	ggt	tat	cct	gta	ctg	tac	cca	att	gga	tgg	tca	tct		3488
310	Thr	Ala	Asp	Gly	Tyr	Pro	Val	Leu	Tyr	Pro	Ile	Gly	Trp	Ser	Ser		
311		1010					1015					1020					
313	tca	gat	aat	gtg	aac	tgt	aga	ccc	cgg	agc	ctt	gag	gac	ccc	ttt		3533
314	Ser	Asp	Asn	Val	Asn	Cys	Arg	Pro	Arg	Ser	Leu	Glu	Asp	Pro	Phe		
315		1025					1030					1035					
317	ggc	atc	aac	tct	ggg	aag	aaa	atg	aca	ata	tcg	aag	tct	gag	gtt		3578
318	Gly	Ile	Asn	Ser	Gly	Lys	Lys	Met	Thr	Ile	Ser	Lys	Ser	Glu	Val		
319		1040					1045					1050					
321	ctc	aaa	aga	ggc	aca	atc	cag	gac	tgc	agt	agt	acg	tgt	gga	gtt		3623
322	Leu	Lys	Arg	Gly	Thr	Ile	Gln	Asp	Cys	Ser	Ser	Thr	Cys	Gly	Val		
323		1055					1060					1065					
325	gcc	acc	atc	acg	tgt	agc	ctc	ctt	cct	tcc	gac	ctg	agt	caa	gtg		3668
326	Ala	Thr	Ile	Thr	Cys	Ser	Leu	Leu	Pro	Ser	Asp	Leu	Ser	Gln	Val		
327		1070					1075					1080					
329	aat	gtc	tcg	ctc	ctc	ctg	tgg	aaa	ccg	act	ttc	ata	aga	gca	cat		3713
330	Asn	Val	Ser	Leu	Leu	Leu	Trp	Lys	Pro	Thr	Phe	Ile	Arg	Ala	His		
331		1085					1090					1095					
333	ttt	tcc	agc	tta	aac	ctt	act	cta	aga	gga	gaa	ctt	aag	agt	gaa		3758
334	Phe	Ser	Ser	Leu	Asn	Leu	Thr	Leu	Arg	Gly	Glu	Leu	Lys	Ser	Glu		

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/000,004A

DATE: 07/18/2001

TIME: 12:01:50

Input Set : A:\600-314SeqLst.txt

Output Set: N:\CRF3\07182001\I000004A.raw

L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date